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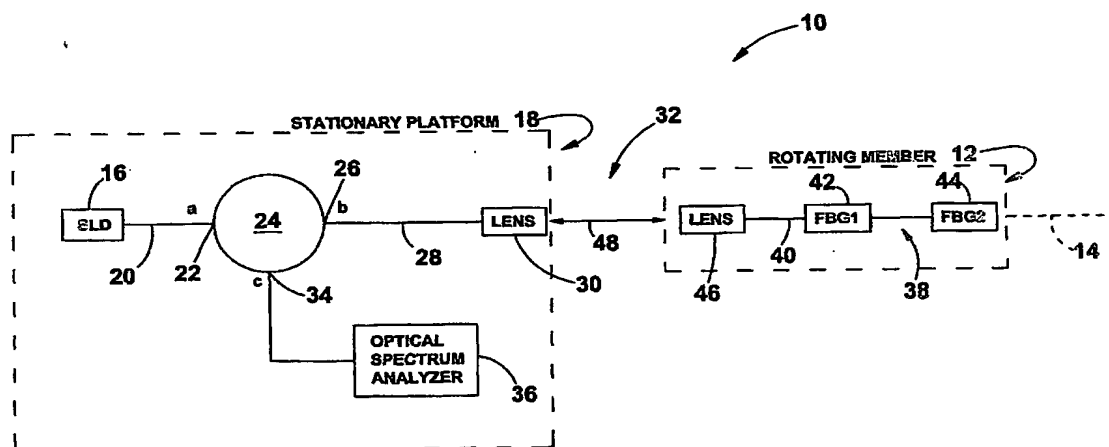
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(54) Title: OPTICAL SYSTEM AND METHOD FOR MONITORING VARIABLE IN ROTATING MEMBER



(57) Abstract: A system (10) for monitoring a variable such as torque relating to a rotating member (12) comprises a source (16) of optical energy for emitting optical energy from a stationary measuring station (18). A transducer (42, 44) which is mountable on the member (12) in use modulates optical energy received from the source in accordance with changes in the variable. An optical transmission system (30, 48, 46) which is provided between the source and the member enables transmission through free space of optical energy between the member and the station, so that the modulated energy may be analyzed to monitor the variable.